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EXAMINER

DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
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2152

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/763,448	Applicant(s) CABRERA ET AL.	
	Examiner Thomas J. Dailey	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-34 are pending in this application.

Response to Arguments

2. Applicant's arguments and filed amendment have alleviated the claim objections and the U.S.C. 101 and 112 rejections presented in the previous Office Action.
3. Applicant's arguments with respect the prior art rejections of claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1-11, 14, 16-24, 27, and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mani et al ("Use SOAP-based intermediaries to build chains of Web service functionality", Mani, Anbazhagan and Nargarajan, Arun, September 2, 2002, <<http://www.ibm.com/developerworks/webservices/library/ws-soapbase/>>),

hereafter "Mani," in view of Graham et al ("Building Web Services with Java: SOAP", Graham, Steve; Boubez, Toufic; Daniels, Glen; Davis, Doug; Nakamura, Yuichi; Neyama, Ryo; and Simeonov, Simeon. May 10, 2002, <<http://www.informit.com/articles/article.aspx?p=26666&seqNum=8>>), hereafter "Graham."

6. As to claim 1, Mani discloses I a network environment that includes a receiving computing system capable of receiving messages from other computing systems in the network environment, the receiving computing system including a dispatching component that dispatches a received message to groups of one or more methods for further processing, a method for the dispatching mechanism to dispatch a received message even though the dispatch mechanism may not have direct access to some information relevant for the dispatch, and even though that information is not present or is not easily obtained from the message as received by the receiving computing system (page 1, paragraph 2, an intermediary reads on "the receiving computing system" and possesses a dispatching component as it "forward[s] the altered message to the ultimate receiver"), the method comprising the following:

an act of receiving a message at the receiving computing system (page 1, paragraph 2 lines 4-5, intercepting reads on receiving);

an act of passing the received message through one or more receiving path components that are positioned in the receiving path of the message prior to

being passed to the dispatching component, the passing of the received message to the dispatching component occurring within the receiving computing system, each of the receiving path components in the receiving path being components of the receiving computing system (page 2, paragraph 2:lines 2-3, messages are processed before they are forwarded (dispatched), processing being internal to an intermediary);

an act of at least one of the one or more receiving path components modifying the message with at least one modification, the modification including information that is not included in the received message (page 2, paragraph 7: bullet points 1 through 3, intermediary can remove or add SOAP headers);

an act of the dispatching mechanism receiving the modified message from the receiving path within the receiving computing system (page 2, paragraph 2:lines 2-3, messages are processed before they are forwarded (dispatched));

based on the information obtained in the modification, an act of the dispatching mechanism using the obtained information to dispatch the message to a group of one or more methods for further processing, (page 2, paragraph 7: bullet point 3, the intermediary node can modify the message's path by adding new intermediaries to it).

But, Mani does not explicitly disclose the dispatching the message to a group of one or methods within the receiving computing system. Rather, Mani discloses dispatching a message from one SOAP intermediary to another; not

explicitly disclosing, one way or the other, if the SOAP intermediaries are on the same computing system or separate computing systems.

However, Graham discloses that SOAP intermediaries are applications (page 1, paragraph 3, lines 1-2, "SOAP intermediaries are applications...") defined by universal resource indicators (such as URLs) (page 3, paragraph 2, "All header elements...") and routing messages among SOAP intermediaries in relation to a web service (page 4, paragraph 3, "The gateway application...", multiple applications can be stored on the same server).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mani and Graham in order to allow Mani's teachings to be applied to a broader range of web services, i.e. ones in which SOAP intermediaries can be on a single computing system.

7. As to claim 18, Mani discloses a computer program product for use in a network environment that includes a receiving computing system capable of receiving messages from other computing systems in the network environment, the receiving computing system including a dispatching component that dispatches a received message to groups of one or more methods for further processing, the computer program product for performing a method for the dispatching mechanism to dispatch a received message without having direct access to at

least a portion of information relevant for the dispatch, and the information is not being included in the message as received by the receiving computing system (page 1, paragraph 2, an intermediary reads on “the receiving computing system” and possesses a dispatching component as it “forward[s] the altered message to the ultimate receiver”), the computer program product comprising one or more recordable type computer-readable media having thereon computer-executable instructions that, when executed by one or more processors of the computing system, cause the computing system to perform the following:

- an act of accessing a received message the message being received at the receiving computing system (page 1, paragraph 2 lines 4-5, intercepting reads on receiving);

- an act of a receiving path component modifying the received message with at least one modification, the modification including information that is not included in the received message (page 2, paragraph 7: bullet points 1 through 3, intermediary can remove or add SOAP headers); and

- an act of providing the modified message at least indirectly through one or more other receiving path components to the dispatching mechanism so that the dispatching mechanism, based on the information obtained in the modification may use the obtained information to dispatch the message to a group of one or more methods for further processing (page 2, paragraph 7: bullet point 3, the intermediary node can modify the message’s path by adding new intermediaries to it).

But, Mani does not explicitly disclose the dispatching the message to a group of one or methods within the receiving computing system. Rather, Mani discloses dispatching a message from one SOAP intermediary to another; not explicitly disclosing, one way or the other, if the SOAP intermediaries are on the same computing system or separate computing systems.

However, Graham discloses that SOAP intermediaries are applications (page 1, paragraph 3, lines 1-2, "SOAP intermediaries are applications...") defined by universal resource indicators (such as URLs) (page 3, paragraph 2, "All header elements...") and routing messages among SOAP intermediaries in relation to a web service (page 4, paragraph 3, "The gateway application...", multiple applications can be stored on the same server).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mani and Graham in order to allow Mani's teachings to be applied to a broader range of web services, i.e. ones in which SOAP intermediaries can be on a single computing system.

8. As to claims 32 and 34, they are rejected by the same rationale set forth in claim 1's rejection.

9. As to claims 2 and 19, Mani discloses the message includes a Simple Object Access Protocol (SOAP) envelope (page 5, Listing 2), and wherein the act of at least one of the one or more receiving path components modifying the messages comprises the following:

an act of adding a SOAP header with additional information to the message (page 7, paragraph 7: bullet point 3).

10. As to claims 3 and 20, Mani discloses an act of add at least one data field to the message (page 2, paragraph 7: bullet point 3).

11. As to claims 4 and 21, Mani discloses an act of modifying at least one data field in the message (page 2, paragraph 7: bullet point 3).

12. As to claims 5 and 22, Mani discloses an act of deleting at least one data field from the message (page 2, paragraph 7: bullet point 2).

13. As to claim 6, Mani discloses an act of a receiving component modifying the message (page 2, paragraph 7: bullet point 2).

14. As to claim 7, Mani discloses an act of a receiving path component other than the receiving component modifying the message (page 2, paragraphs 6 and paragraph 7: bullet point 3, multiple intermediaries can process the message).

15. As to claim 8, Mani discloses an act of a single receiving path component modifying the message (page 2, paragraph 7: bullet point 3, if there is only one intermediary, there is only a single receiving path component).
16. As to claim 9, Mani discloses an act of a plurality of receiving path components modifying the message (page 2, paragraphs 6 and paragraph 7: bullet point 3, multiple intermediaries can process the message).
17. As to claims 10 and 23, Mani discloses the at least one modification includes a connection identification identifying a connection that the message was received over (page 3, paragraph 6 ["WS-Routing describes..."]: line 2-3).
18. As to claims 11 and 24, Mani discloses the at least one modification includes a protocol type used to receive the message (page 5, Listing 2, all of the URLs indicate protocol type, e.g. <http://www.ibm.com/quotesservice>, indicates HTTP was used).
19. As to claims 14 and 27, Mani discloses the at least one modification includes information related to a status of a sender of the message (page 3, paragraph 6 ["WS-Routing describes..."], lines 1-4, the sender status is indicated in that it is the originator of the message).

20. As to claim 16, Mani discloses:

an act of accessing a dispatch rule that references information present in the at least one modification to the message (page 4, bullet point 2 ["The WS-Routing intermediary..."]) and

an act of dispatching the message according to the dispatch rule (page 4, bullet point 2 ["The WS-Routing intermediary"]) and.

21. As to claim 17, Mani discloses the dispatch rule is expressed using one or more XPATH statements (page 5, Listing 2).

22. As to claims 29, Mani discloses the one or more computer-readable media comprise physical memory media (inherent in page 1: paragraph 2).

23. As to claims 30, Mani discloses the one or more computer-readable media comprises persistent memory (inherent in page 1: paragraph 2).

24. As to claims 31, Mani discloses the one or more computer-readable media comprises system memory (inherent in page 1: paragraph 2).

25. As to claim 33, Mani discloses:

an act of receiving the message (page 1, paragraph 2 lines 4-5, intercepting reads on receiving);

an act of passing the received message through one or more receiving path components that are positioned in the receiving path of the message prior to being passed to the dispatching component (page 2, paragraph 2:lines 2-3, messages are processed before they are forwarded (dispatched));

an act of at least one of the one or more receiving path components modifying the message with at least one modification (page 2, paragraph 7: bullet points 1 through 3, intermediary can remove or add SOAP headers); and

an act of the dispatching mechanism receiving the modified message from the receiving path (page 2, paragraph 2:lines 2-3, messages are processed before they are forwarded (dispatched)).

26. Claims 12-13, 15, 25-26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mani in view of Graham as applied to claim 1 above, and further in view of what was well in the art at the time of the invention.

27. As to claims 12 and 25, Mani and Graham disclose the invention substantially with regard to the parent claim 1, but does not explicitly disclose the at least one modification includes a time that the message was received.

However, time stamping any modifications made to a message was a known and expected practice to one of ordinary skill in the art at the time of the invention. Therefore, Official Notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to use a known practice (time stamping) for debugging purposes.

28. As to claims 13 and 26, Mani and Graham disclose the invention substantially with regard to the parent claim 1, but does not explicitly disclose the at least one modification includes information related to a handling priority of the message.

However, given the objectives of Mani's disclosed use of SOAP intermediaries ("Web-intermediaries are widely in use, offering functions like customization, personalization, caching, filtering, and transcoding by modifying and enhancing data as it flows between a Web client and server" (page 1, paragraph 2:lines 2-4)), it would have been obvious to one of ordinary skill in the art to prioritize any data as it flows between a Web client and a server (i.e. this is a form of customization and filtering). Therefore, Official Notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to use a known practice (prioritize data processing) in order to allow finer control of data as it flows through a Web services system.

29. As to claims 15 and 28, Mani and Graham disclose the invention substantially with regard to the parent claim 1, but does not explicitly disclose the at least one modification includes information related to load of the computing system.

However, given the objectives of Mani's disclosed use of SOAP intermediaries ("Web-intermediaries are widely in use, offering functions like customization, personalization, caching, filtering, and transcoding by modifying and enhancing data as it flows between a Web client and server" (page 1, paragraph 2:lines 2-4)), it would have been obvious to one of ordinary skill in the art to include load information of Web services in a message that flows between a Web client and a server (i.e. this is a form of customization). Therefore, Official Notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to use a known practice (prioritize data processing) in order to allow finer control of a Web services system.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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